Fall 1969
Volume 2, Number 4

ROTUNDA the bulletin of The Royal Ontario Museum

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or telephone 928-3704.

The Cover:

Detail of painting by Hugo van der Goes, 15th century (see page 10)

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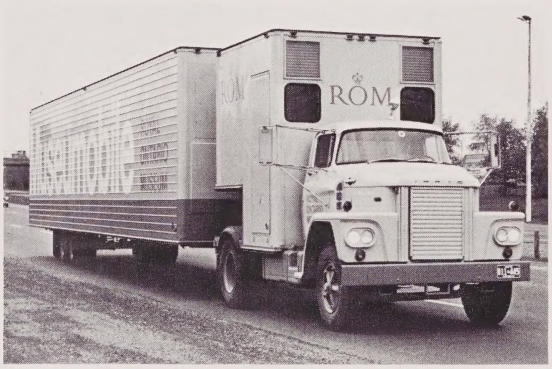
Spotlight with the Editor

Past, present and future at the ROM

More than 42,000 people visited the ROM Museumobile in its first three months of operation



EXCAVATIONS AT NUN'S ISLAND

During the summer Don Webster, Curator of the Canadiana Department, directed archaeological work on Nun's Island in the St. Lawrence River at Montreal. The island has been inhabited for 300 years and in the 18th century it became the domain of the sisters of the Congrégation de Notre-Dame. In 1961 it was sold by the religious order and in 1966 a developer began work on turning the island into a residential community. In the next few years the island will become the home of perhaps 20,000 people. But it is also a depository of the history of settlement in Canada. Mr. Webster's efforts to detail that settlement were supported by the Quebec government and assisted by the work of students from the University of Montreal and the University of Windsor, Ontario.

STEUBEN GLASS

In early September, the Canadiana Gallery was the scene of a reception for delegates, from all over the world, attending the annual meeting of the International Committee on Glass. Most of the sessions involved discussions on the technical applications and the future developments of glass. One application of the material, glass as an art form, was contributed to the

Plaque awarded Doug Patrick, ROM's Honorary Philately Curator

Engravings on Steuben glass bowl, presented to ROM, represent early North American trade and commerce

Museum's Canadiana Department by the convention. It is a Steuben glass bowl 7½ inches in diameter, engraved by artist Sidney Waugh with scenes representing early trade and commerce in North America: mining, barter and sea trade.

PHILATELY

Douglas Patrick, for many years the ROM's honorary curator of philately, must be Canada's best-known authority on stamps. He long has been the host of the CBC radio's Stamp Club, the author of a regular stamp column in the Globe and Mail and other newspapers, and the man responsible for the regularly-changing exhibits of stamps in the Museum's lower rotunda. This man of many honours recently was awarded a plaque by the Canadian Association for Israel Philately for his contributions to young peoples' knowledge of stamps of the world.

ROMARAMA

The one night in the Museum calendar that defies description—ROMARAMA—falls on October 20 this year. It is the brain child of the women of the Museum Members' Committee. With determination born of conviction that the Museum is a vital part of the community, the women, headed by Mrs. June Spanton, boldly approached some of Canada's top names to donate their services for the one big night of fun. Among those who responded enthusiastically were Wayne and Shuster, Pierre Berton, Gordon Sinclair, Max Ferguson, Betty Kennedy, Don Harron, Adrienne Clarkson. Artist Harold Town made his own unique contribution: a limited edition poster especially for the museum. Only 1,000 were printed. Mr. Town, almost as well known for his column in *Toronto Life* magazine as for his contribution to Canadian art, was to personally sign 300 numbered copies of the poster for ROMARAMA. These signed copies sell for $30 each. The remaining unnumbered copies, with the credit line, "designed by Harold Town," are available at $8 each. While the supply lasts, signed and unsigned posters may be purchased from the ROM Sales Desk, 100 Queen's Park, Toronto 5.

META

From art posters to educational television is a short jump in the ROM world. In association with Metropolitan Educational Television Association (META) work has begun on a film on the history of dinosaur exhibits at the museum. Clarke Wallace's script traces such displays from the first finds of dinosaur bones in Alberta to the completion of the new Vertebrate Palaeontology Galleries at the ROM. The galleries, and the film, won't be completed for another two years, but when both are finished they will be a real treat for dinosaur fans.

MUSEUMOBILE

That film may be in the future but the ROM's Museumobile is definitely in a most successful present. On the highways of Ontario since July 1, the Museumobile, describing and illustrating the world of archaeology, at last report had received more than 42,000 visitors. So far it has made stops in the Ontario communities of Barrie, Midland, Owen Sound, Goderich, Sarnia, Chatham and Windsor. Following stays in London, Woodstock and Stratford, the 72-foot long tractor-trailer moves November 29 to the Canadian Educational Showplace at Toronto's Canadian National Exhibition grounds. There, for four days, it may be examined by teachers and educationists from all over the province. Then the Museumobile is scheduled to continue its tour of communities in southwestern Ontario. Next season it goes to eastern Ontario, and in its third year to cities and towns in northern Ontario.

Blooms on ROM poster by artist Harold Town depict Museum objects and activities

ADAM AND EVE

BY H. HICKL-SZABO
CURATOR
EUROPEAN DEPARTMENT

The boldly fashionable now wear see-through blouses. Nude actors appear on stage and only a subdued outcry is raised. Yet for two millenia public nudity was acceptable only in representations of the Adam and Eve theme.

The story of Adam and Eve is far older than Genesis. The topic can be traced back to at least 5,000 B.C. in Mesopotamia, and it is reflected in the mythology and folklore of nearly all West Asian cultures. Even then the snake was an integral part of the story. A pictorial example of 2,500 B.C., a cylinder seal in the British Museum, shows a man and a woman sitting under a tree and eating its fruit; there is a serpent behind them. The seal is Sumerian. While it may show the deity Nin-Griszeda with a female companion, it is illustrated in the Encyclopaedia Judaica as the earliest known representation of the Fall of Man.

14. Scene from Michelangelo's ceiling in the Sistine Chapel, 16th century

First and second century illustrations of the biblical Fall do not exist, and in all probability never did. The first Christians were Jews, whose law forbade pictorial representations. Although they accepted Jesus as the long-expected Messiah, they had no intention of changing their religion, and probably never noticed that in time they had done so. In the thirty or forty years after Christ's death, it became evident that Christianity had outgrown the boundaries of a mere sect, and in official circles they were more than ever considered a political danger. The centre of action had moved from Jerusalem to Rome, and there the followers of Jesus, little more than fugitives, began to formulate their creed. Religious decorations soon began to appear in secret meeting places, but they were chiefly symbols, a means of communication, a code of signals.

Considerably later, when the Christian faith was to some extent recognized, biblical scenes were introduced. The Fall appeared frequently in catacombs, in tombs and on sarcophagi, indicating that the first meaning attached to the scene was that of "death" or "mortality", now usually indicated by a skull or skeleton. The snake, large or small, was simply an animal, with no special meaning or importance, for the concept of the Devil, or Satan, is not part of the Jewish religion. Figure 2 shows examples from a sarcophagus relief now in the Musee de Toulouse, and Fig. 3, a 4th century catacomb

1. *Impression of a cylinder seal. Sumerian, 2500* B.C. *(by kind permission of the British Museum)*

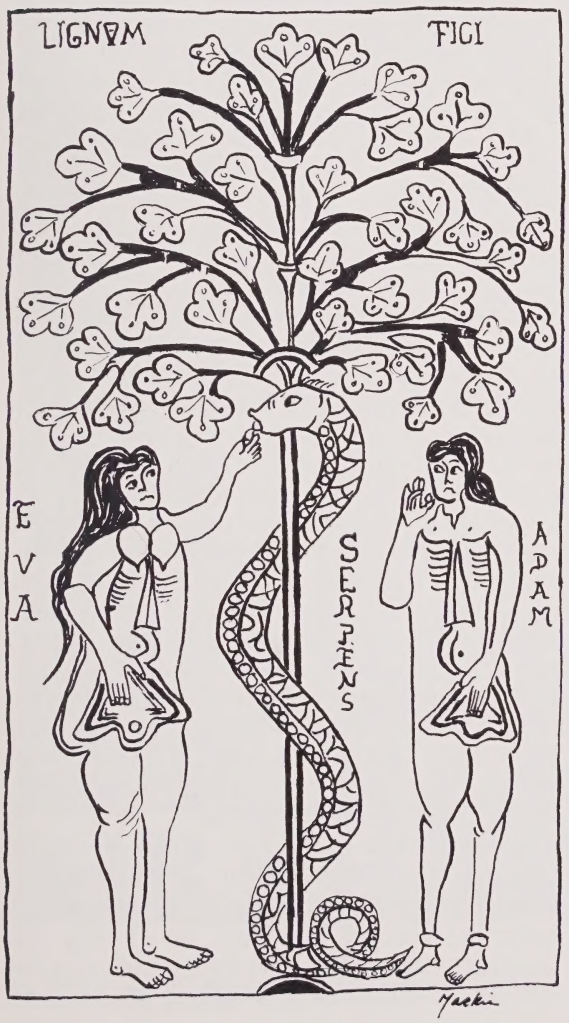
2. *Relief from a sarcophagus in the Musee de Toulouse; probably 3rd century* A.D. *(after a photograph)*

3. *Fresco from a catacomb in the Via Latina in Rome, 4th century* A.D.

mural from the Via Latina in Rome.

At the beginning of the 5th century the snake, hitherto of secondary importance and rather unclear provenance, became the instrument of Satan, his ambassador, in fact. As such, it may be seen on a miniature from a 4th or 5th century manuscript in the Vatican Library (Fig. 4), on a miniature in the 6th century Vienna Genesis, as a dragon or monster on the 11th century bronze door at Hildesheim and on two 12th century capitals from France (e.g. Fig. 5).

4. Miniature from the Codex Virgilianus. Probably 5th century A.D. *(after a photograph)*



This new emphasis on the snake tempting, terrorizing or charming Eve into taking the forbidden fruit originated with St. Augustine, when about the year 400 he undertook to establish infant baptism, in order to free the human soul as early as possible from Original Sin, Satan's contribution to the Creation. For instance, on a French capital of the 11th century now in the Cluny Museum, a demon is motivating Eve to take the fruit (Fig. 6). St. Augustine probably realized that infant baptism would vastly increase the number of Christians by establishing life-long habits early, but he left to the Christian world the riddle of "Original Sin," and the meaning of this term is not easily established. Between the 5th and the 12th centuries whole platoons of theologians ruined their pens and their voices on theories, and Man, a creature halfway between animal and angel, was cast in the most fascinating roles. In general, the battle raged between those who identified concupiscence with Original Sin, and those who upheld the Bible's command, "Be fruitful and multiply," but countless theories were postulated.

However Original Sin was identified, in artistic development of the theme any change in the size of the snake is meaningless. No artist before the 18th century ever attempted to give an accurate picture of a special type of snake. In general, objects, persons or animals of the same importance were depicted as being of the same size; those of greater importance were larger. The tree varies according to region—in Germany an apple tree, in France a grape vine, in West Asia a date palm, as the Church tried to popularize the theme through well-known objects.

By the end of the 12th century the snake had taken on a different appearance. It was shown with a human head, the so-called anthropoid snake, and retained that form until after 1500. The earliest known example, an enamel plaque by Nicholas of Verdun on the Klosterneuburg altar in Austria, dating from 1183 (Fig. 7) shows the snake, with a woman's face and wearing a crown, coiled around the tree. A similar 16th century example is in the ROM collections (Fig. 9). In other examples of about

5. Capital from Notre Dame du Port, Clermont Ferrand. French, 12th century (by kind permission of the Caisse National des Monuments Historiques in Paris)

6. Capital, southern French, 11th century (by kind permission of the Cluny Museum)

1430 (Fig. 8) the snake has become a female monster with a human face.

In his *Iconographie de l'Art Chretien* Louis Reau remarks that the anthropoid snake is a French contribution to the development of this theme, with roots in mediaeval mystic or cabalistic sources. Two Hebrew miniatures suggest the origin of this type, one in the Northern French style from a manuscript of about 1278 by Benjamin bar Sopha (Fig. 10) and the other from the Codex of Jacob Ben Asher (Arba 'Ah Turim) written in 1475, probably in Italy (Fig. 11). Research reveals that Rabbinical scripture contained a reference to Lilith, Adam's first female companion (or first wife) until the 7th century, when all mention of her was dropped. The tradition persists in the Jewish cabala to this day, and it must be assumed that it was from the cabala that before 1200 Lilith found her dark way into the workshops of such artists as Nicholas of Verdun. The male anthropoid, as seen in Jan Scorel's painting of about 1480 in the Ferdinandeum, derives from another source, probably also mystic, but connected only indirectly with the story of Lilith.

After the Reformation artists often borrowed the theme of Adam and Eve as a pretext for a double portrait in the nude, as can be seen in a panel by Mabeuse in Hampton Court (Fig. 12) and even better in the splendid painting by Hans Baldung Grien in the Thyssen Collection in Lugano (Fig. 13). Grien's panel also shows something more important—the classical inspiration of the Renaissance. Michelangelo's Adam and Eve in the Sistine Chapel (Fig. 14) shows the snake with female face and bust, quite evidently a Siren from Greek mythology. Creatures of fairy tales, folklore and mythology (nixies, mermaids, sirens, etc.) all derive indirectly from the Lilith prototype, but while Renaissance examples descended through the classical inspiration, the mediaeval descended directly from the Jewish cabala.

By the middle of the 17th century a secular attitude is even more evident. In a painting by Rubens in the Prado (Fig. 15) the anthropoid snake has changed into Eros, thus raising the question whether Sex, Nature's means of preventing the extinction of mankind, can vie with

7. Enamel plaque from the Klosterneuburg. Austrian, 12th century, by Nicholas of Verdun (by kind permission of the Stiftsmuseum, Klosterneuburg)

8. *Painting by Hugo van der Goes, 15th century (by kind permission of the Kunsthistorisches Museum, Vienna)*

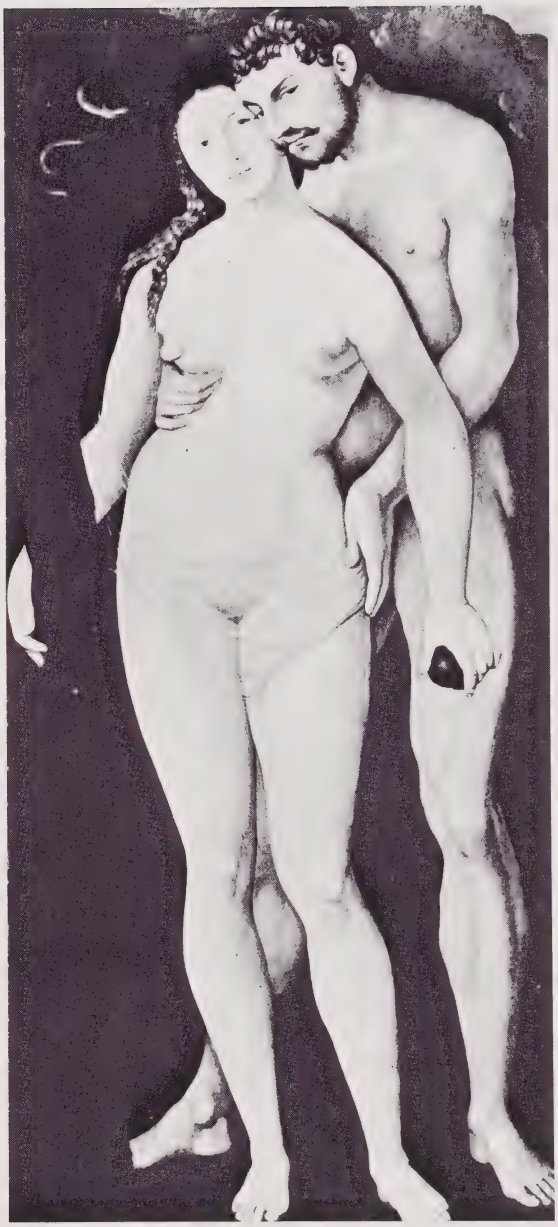
9. *Enamel plaque (above). German, 16th century,* ROM *acc. no 923.4.21a*

10. *(right) Miniature from a manuscript by Benjamin bar Sopha, probably French, 13th century (by kind permission of the British Museum)*

11. *(far right) Miniature from the Codex of Jacob Ben Asher, probably Italian, 15th century (by kind permission of the Britush Museum)*

Eroticism, her charming, witty and playful half-sister. From this period also comes the lace medallion (Fig. 17) showing Adam, Eve and the serpent—an adaption of the theme to fashionable clothing.

This artistic approach anticipated the spirit of Rococo, a period almost devoid of religious ideas. Artistic effort in the Age of Reason seems to have run chiefly to views of "Shepherds at Play," as executed by Fragonard, Boucher or Watteau, but a marble group of the Expulsion by Francesco Bertos, in the Victoria and Albert Museum, shows Adam and Eve standing between two tree trunks. The snake is coiled around the lower one, and the Angel Gabriel is flying over the tall trunk. One cannot but feel



13. (above) Painting by Hans Baldung Grien. German, 16th century (by kind permission of Baron Thyssen, Lugano)

12. Painting by Jean Gossard de Maubeuge, dit *Mabeuse (reproduced by gracious permission of Her Majesty the Queen)*

15. Painting by Peter Paul Rubens. Flemish, 17th century (by kind permission of the Prado Museum, Madrid)

that the artist had in mind a Cupid rather than the haughty angel in the works of earlier periods.

Such rather frivolous treatment of the topic shows a strong estrangement from traditional interpretations, but with the beginning of the 19th century a complete break with tradition becomes evident. What links the relevant works of such artists as Blake, Böcklin, Burne-Jones, Kaulbach, Klinger and the early Chagall is the complete absence of the biblical message, which now seems to be replaced by the Theory of Evolution.

How far removed from, yet still quite close to, the story of the Creation this new group really is, can be seen in a painting ascribed to Jean Veber, a famous French caricaturist of about 1900 (Fig. 18). In the centre is a woman trying to tempt a hungry-looking male whose animal tendencies are only too evident. Although surrounded by other forms of life, he has obviously lost interest in the lower species, and desires only to cultivate his new acquaintance. There is no sign of the snake, symbolic or otherwise, yet beyond doubt this is the moment before the Fall.

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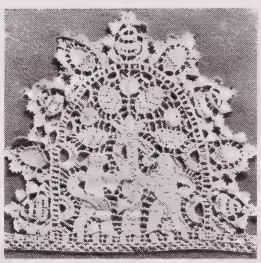
Encyclopaedia Judaica, S. V. Adam, Eve, Lilith

16. Marble group by Francesco Bertos. Italian, 18th century (by kind permission of the Victoria and Albert Museum)

17. Needlepoint lace. England, 17th century ROM *acc. no 911.2.242*

18. Painting ascribed to Jean Veber. French, 1900



Heribert Hickl-Szabo, Curator of the European Department, was born in Graz, Austria, and joined the ROM in 1959 after spending his early years in the family antique business. He holds a cross appointment at the University of Toronto as Special Lecturer in the Department of Fine Art. Mr. Hickl-Szabo, his wife and four children are enthusiastic summer residents of the Muskoka district.

IT'S GOT TO HAVE A NAME

SYSTEMATIC ZOOLOGY

R. L. PETERSON,
CURATOR
DEPT. OF MAMMALOGY

Man now is capable of making profound and rapid alterations in the environment, and the future survival of many species—indeed, of man himself—is becoming more and more dependent on human action.

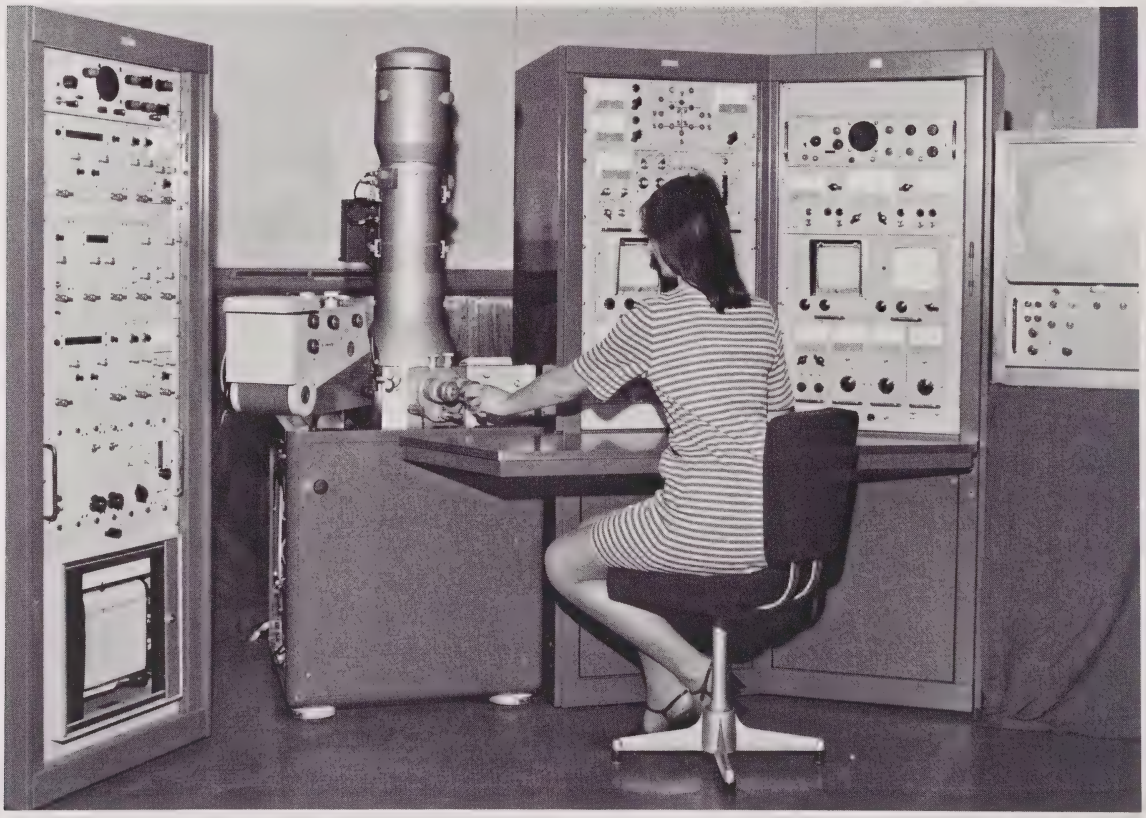
One example of how human action can adversely affect complex and interrelated ecological chain reactions is the far-reaching effects of the indiscriminate use of insecticides. Although ideally intended to control a specific insect pest, such insecticides have been shown to affect a wide spectrum of other invertebrate species. As well, deleterious effects may extend to fish, amphibians, birds and mammals—and to the pollution of streams, rivers, lakes and even oceans.

If man is to avoid in the future some of the serious devastations he has caused in the past, it is urgent that he learn more about our faunas and assess the complex interrelations that exist among them.

Such is one purpose of a unique research centre for systematic zoology being established at the Royal Ontario Museum. It is the result of a grant by the National Research Council of Canada to the University of Toronto, Department of Zoology, and the ROM Life Sciences Departments.

Systematic Zoology involves study of the processes of speciation or the diversity and differentiation of organisms and the existing relationships between them, together with an orderly or "Systematic" classification of knowledge concerning them. Systematics forms a basic core of knowledge upon which most other specialized branches of zoology depend. There can be no

Scanning electron microscope and accessories in use. Courtesy of Glendon Scientific Instruments Ltd.



truly scientific communication among zoologists until each individual kind of animal studied is known by a unique name throughout the world of science. Systematic zoology contributes materially to the applied sciences, including such different but related disciplines as medicine, public health, agriculture, conservation and natural resources management.

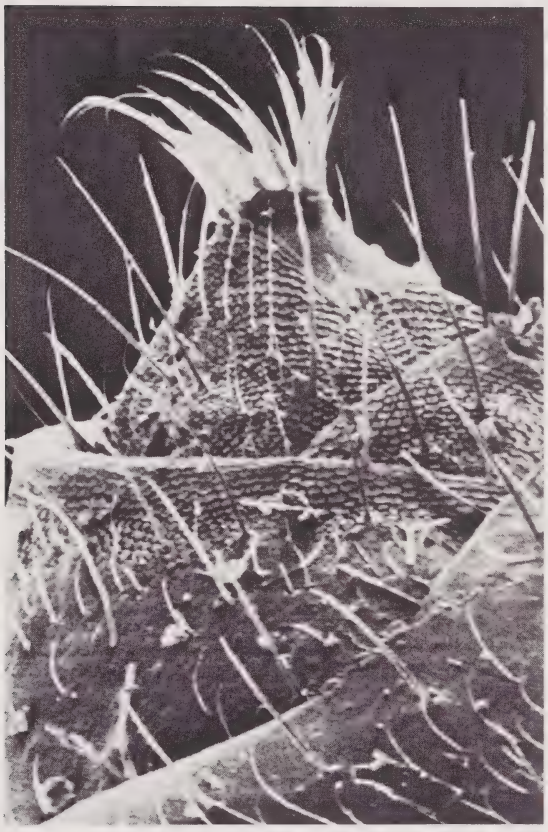
Until now there has been no centre for systematic zoology in Canada. Almost all personnel involved in the field has had to be recruited from other countries although the basic resources—staff and collections—have existed in Toronto. It has not been possible to realize their full potential because of the lack of adequate financial support and adequate research facilities. The new programme of teaching and training made possible by the NRC grant will be at both undergraduate and graduate levels.

The curatorial staff of the ROM Life Sciences Departments includes experienced scholars with world-wide reputations in scientific research in various fields. Each Department has extensive research collections, frequently the largest in Canada, and most of the curators have cross-appointments to the professorial staff of the U. of T. The University's Department of Zoology also has on staff professors (some cross-appointed to the ROM) whose basic research interest is in systematics—indeed, some are recognized as leading world authorities in one or more groups of animals.

As in most fields of scientific endeavour, there have been significant advances in knowledge in systematic zoology in recent years. In the past research in this field was fundamentally based on observations of morphological characters—usually oriented around the observed characteristics of the original type specimens—and frequently based on only a small number of specimens. All too frequently there was no awareness of the normal biological variations that take place in response to sex, age, season, or environmental effects. Systematic research requires collections of a sufficiently large number of individuals to demonstrate the normal biological variability inherent in a population from any one area. Studies of variation thus require series of specimens from a number of areas throughout a species range of geographic distribution. (This is an answer to a frequent question of casual visitors to research departments of the ROM: "Why do you want so many specimens of the same species?"!)

Studies of a great number of specimens, often involving a large number of measurements for each individual, require modern statistical methods. The use of large computer facilities allows the rapid analysis of great masses of data, and the new systematic centre in the ROM is being equipped with special electronic data processing equipment to allow statistical programmes to be developed for data storage and retrieval. Information for each species will be quickly recorded and stored for future use as required. In addition the installation of an optical scan-

Bird skin storage. These specimens and their collecting labels are used for study of variations due to sex, age, season and environment



ning device will revolutionize the process of recording character information of specimens. Measurements can be made electronically at high speeds and stored on magnetic tape or fed directly into the computer for identification on multivariate analysis programmes. Data on literally hundreds of morphological characters will be obtained accurately, rapidly and automatically to provide a highly sophisticated system. The potential of this facility for systematic research is truly tremendous and exciting.

To be installed at the ROM will be a scanning electron microscope, an instrument of revolutionary possibilities. This recently developed microscope has an optimum maximum magnification of between 30,000 and 50,000 times normal size, and a depth of focus at least 300 times greater than the best compound microscope now available. With this microscope individual cells, parts of cells, or even the physiological events occurring within cells can be observed in three dimensions.

Also planned for the new centre are modern radiographic equipment that will facilitate the counting of vertebrate and fin rays of fishes and the study of bone structure, tooth development, ossification of bones in age studies, and other internal organs without damage to specimens.

Microscopic sectioning of tissues is an important technique in systematic research. The new laboratory of experimental and analytical systematics will have the full range of equipment for cytological and histological research which will add new dimensions to our understanding of the form and function of the many internal and external organs of animals.

In my own research with bats, as an example, it has been discovered that in one family, the

Three successive magnifications of anal sternite, common yellow garden ant, illustrate the application of stereoscan micrographs. Courtesy of Glendon Scientific Instruments Ltd.

Molossidae, there is a correlation between the size and shape of the ears with the shape and development of the post-palatal region of the head. I suspect that these structures in turn are closely related to the echo-location mechanism by which bats are able to fly in total darkness. Gross anatomical studies have not yet adequately defined the mechanism by which the echo-location pulses are controlled and utilized. The ears and associated structures examined to date of each species of this one family differ in one way or another from all others, suggesting that these structural differences may permit each species of bat to have a distinctive signal system whereby it will not be interfered with by other species. With the new histology and cytology laboratory it is planned to make careful histological studies in an attempt to define the form and function of the post-palatal region (the area of the voice-box) of molossid bats in relation to their highly sophisticated echo-location mechanism.

Among the more recent advances in systematic research is the study of chromosomes among and within species of animals. Studies of chromosome morphology and position have detected unsuspected differences in squirrels, bats, insects and other animals. The modern tissue culture techniques to be employed in the new cytology and histology facilities, for example, will permit the examination of the very small chromosomes of certain species of birds and mammals which in the past have been all but impossible to study.

Data of value in systematics are accumulating at an ever increasing rate, not only by the discovery of organisms new to science but by the use of new techniques and methods. Research in cytology, biochemistry and other fields has

New equipment will permit rapid analysis of great masses of data from extensive research collections.

given us an impressive array of new characters to use in evaluating taxonomic problems posed over the years. One trend in systematics is in a chemical direction and at a molecular level. For example, proteins, which are only one or two chemical steps removed from the gene, form the structural basis for biological variation, and a comparative study of enzymes, hemoglobins or other animal proteins is a direct approach to measuring genetic relationships of taxonomic groups. The very sensitive and specific procedures of electrophoresis and chromatography are extraordinarily capable of distinguishing between macromolecules. These and other biochemical methods will be employed in the Laboratory of Experimental and Analytical Systematics to examine the protein constitution of many groups and thus provide a molecular basis for determining phylogenetic relationships. These more recent techniques of systematic research will now be available to the ROM and University staff in a fully equipped laboratory located on the fifth floor of the Museum. A laboratory supervisor and technical staff will be engaged to assist in the overall research programme of the participating staff of the ROM and University of Toronto.

No less than thirty scientists, listed below under their fields of interest and their professional affiliations, will be participating in various

facets of this new centre for Systematic and Evolutionary Zoology.

Protozoans
J. Berger (Zoology)
S. S. Desser (Parasitology)
A. M. Fallis (Parasitology, Zoology)
Platyhelminth Worms
R. S. Freeman (Parasitology, Zoology)
D. F. Mettrick (Zoology, Parasitology)
K. A. Wright (Parasitology, Zoology)
Oligochaete Worms
R. O. Brinkhurst (Zoology, ROM, S.E.P./M.B.L.)
Insects
C. E. Atwood (Zoology)
G. Knerer (Zoology)
R. C. Plowright (Zoology)
F. A. Urquhart (Zoology)
G. B. Wiggins (ROM, Zoology)
M. C. Parsons (Zoology)
Mites
D. W. Barr (ROM)
D. A. Chant (Zoology, Chairman)
Molluscs (Cephalopods)
D. H. Collins (ROM)
Fishes
E. J. Crossman (ROM, Zoology)
W. B. Scott (ROM, Zoology)
Birds
J. C. Barlow (ROM, Zoology)
D. M. Power (ROM, Zoology)
J. D. Rising (Zoology, ROM)
Mammals
R. L. Peterson (ROM, Zoology)
J. R. Tamsitt (ROM, Zoology)
Fossil Vertebrates
C. S. Churcher (Zoology, ROM)
A. G. Edmund (ROM, Geology)
L. S. Russell (ROM, Geology)
Fossil Invertebrates
D. H. Collins (ROM)
J. B. Waterhouse (Geology, ROM)
Comparative Ethology
D. W. Dunham (Zoology)

The installation of the new facilities and the organization of the overall programme for research in systematic and evolutionary biology, in both the University of Toronto and the ROM, marks an important milestone for those of us who have devoted our professional careers to this field. Countless new horizons are now within sight, and truly exciting times are ahead. Through these new facilities there seems no doubt that the staffs of the University of Toronto and the ROM will make many significant contributions to knowledge and gain for Toronto a world-wide reputation as a leading centre for systematic and evolutionary research in Zoology.

Texas-born Randolph L. Peterson was educated at Texas A. & M. University (B. Sc.) and the University of Toronto (Ph. D.), interrupted by four years' service as pilot/captain in the U.S. Air Force, 1942-46. Dr. Peterson came to the ROM in 1946, and is Curator of the Department of Mammalogy and Professor, Department of Zoology, U. of T. His special interests are the mammals of Canada, particularly the moose, and the myriad families of bats. He has collected in the field in Texas, Mexico, all the Canadian provinces except Newfoundland, the Northwest Territories, Trinidad, Jamaica, Guyana, British Honduras, Kenya and Madagascar.

ACQUISITION BY CONTRIBUTION

LATEST FINDS FROM THE EGYPT EXPLORATION SOCIETY

Bronze figure of Maat, goddess of truth and justice, whose distinguishing symbol is the feather. Overall height 2¼ inches. Saqqara, 6th-5th century B.C.

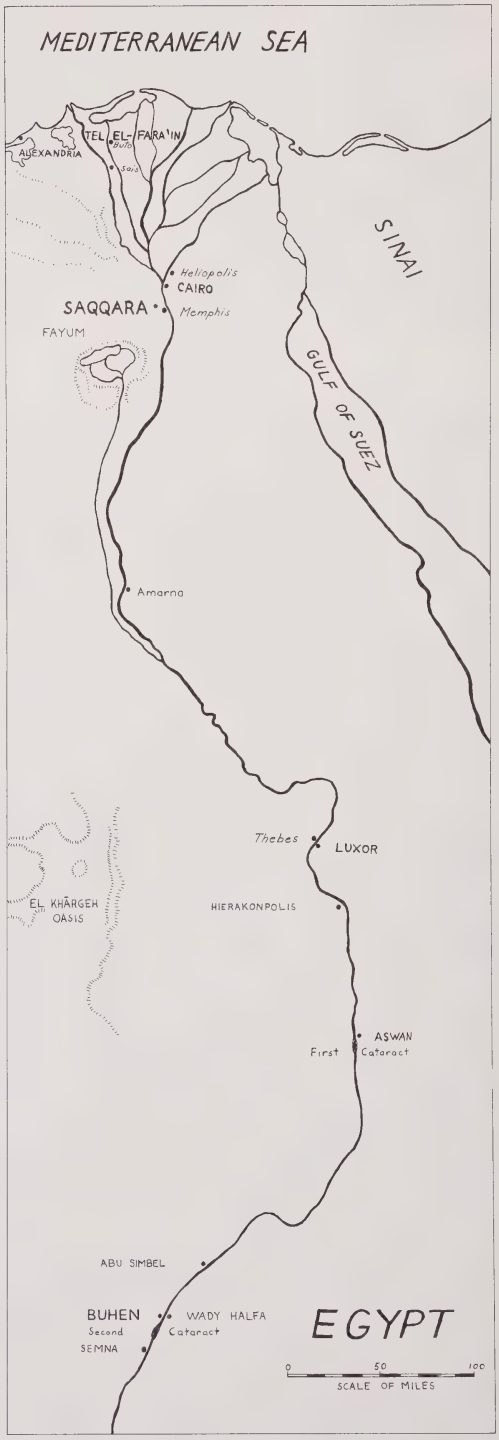
The brick fortress of Buhen, seen from the northwest. Perimeter two-thirds of a mile. Sudanese Nubia, 20th-19th century B.C. *The main wall was about 15 feet thick between the projecting square turrets and more than 40 feet high with still higher turrets. At its base the parapet of the brick-paved rampart is pierced with shooting-embrasures, where a single archer could cover the dry-ditch cut in the living rock. In the background the remains of one of the spur-walls of the main gate, which revealed traces of a drawbridge on rollers.*

Photo W. Needler

WINIFRED NEEDLER
CURATOR
EGYPTIAN DEPARTMENT

For Egyptologists, first-hand knowledge of the monuments and topography of Egypt is an essential qualification, and excavation is an excellent way to acquire field experience. This is an important reason why many universities, research organizations and museums operate their own expeditions to Egypt. Moreover, the published results of field-work, past and present, are necessary to establish the original environment of undocumented museum acquisitions, and to carry out detailed research on special pieces and general typological studies. The preparation of specialized field-reports, which requires more working hours than the field-trip itself, brings prestige to the institution and has educational by-products such as lectures, popular articles and displays illustrating the site and the work.

The Royal Ontario Museum's own excavations would certainly result in many important acquisitions. But, contrary to general belief, excavation is not necessarily the best or cheapest way to promote the proper growth of an Egyptian collection. The organizing institution must first share its finds with the Egyptian Government, which rightly claims all "unique" pieces, and then with contributing institutions or individuals if it has received such financial assistance. Because ancient sites in densely populated Egypt have been plundered through the ages, important objects seldom reach even the excavators, and all museums purchase "special" pieces on the antiquities market from time to time. Useful objects may also be obtained, through purchase, exchange, loan or even gift, from earlier excavations of other institutions, who are usually glad to dispose of surplus material after publication, on account of the perennial problem of storage. Finally, in view of the expense of mounting its own expedition, a museum looking for material returns may prefer to contribute funds to an excavating institution in return for a share of the finds. This



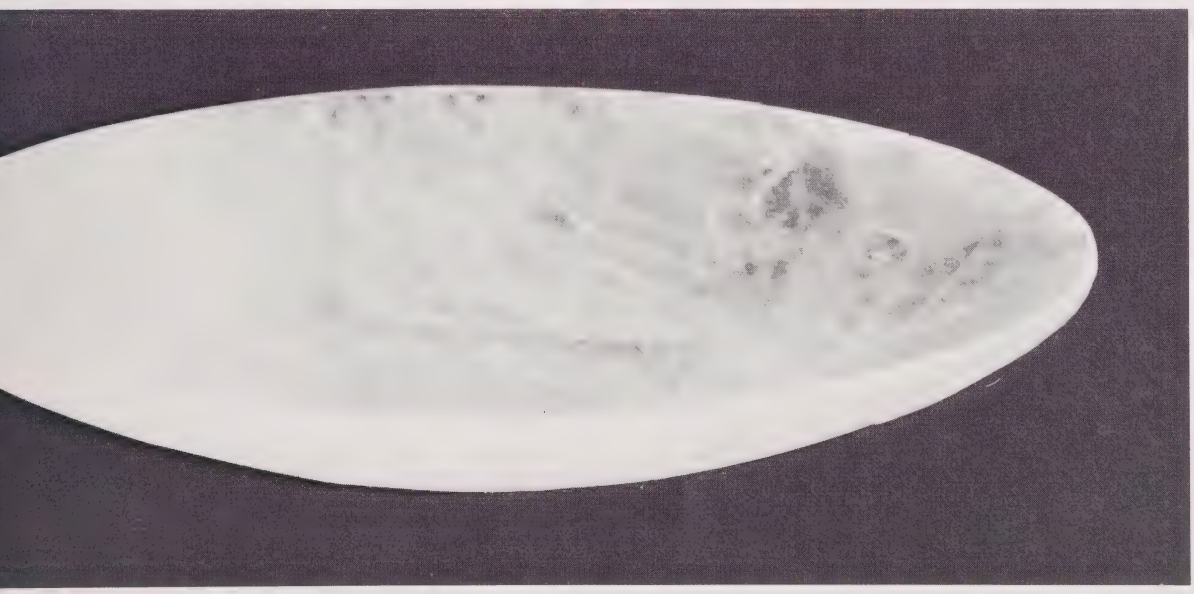
procedure has one great advantage: it makes it easier to build up a balanced collection for the interpretation of ancient Egypt by selecting different expeditions rather than being committed over several years to a single site.

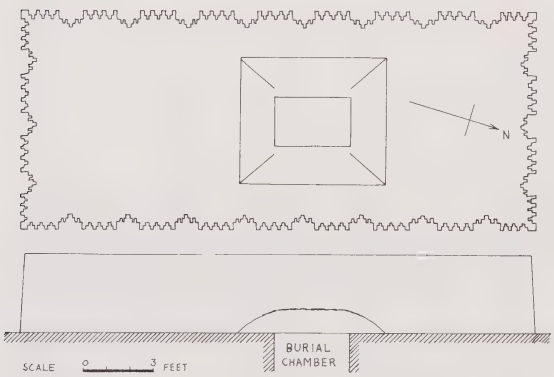
A group of antiquities recently received by the ROM from the Egypt Exploration Society (London) shows how useful contributions to outside excavating institutions can be. In the autumn of 1968 these formed part of an impressive exhibition at the British Museum which presented the Society's work over the past sixteen years, with an excellent accompanying booklet summarizing the various expeditions concerned. The objects were subsequently shipped to the Museum in return for monetary contributions to the Society's excavations. The sites represented are: Saqqara (expeditions in two different areas, the Archaic Cemetery 1952-1956 and the "North Enclosure" 1966-1968), Buhen (1964-1965), and Tell el-Fara'in, ancient Buto (1964-1968). Excavations at the first two sites, Saqqara and Buhen, were directed by Professor W. M. Emery of University College, London, and at the last by Dr. M. V. Seton-Williams. Our contributions also brought to the Museum some pottery and other objects of the 4th to 6th century A.D., from the Society's 1961-1962 excavation of an "X-Group" cemetery at Qasr Ibrim in Egyptian Nubia. On account of their late date and their cultural affinities with the Graeco-Roman world these have been transferred to the Greek and Roman Department which has handled such material in the past.

The oldest objects in this shipment come from the Archaic Cemetery at Saqqara. Excavated in 1952-1956, they are among a group of objects released to the Society by the Egyptian Antiquities Department, by special arrangement, in recognition of Professor Emery's more recent excavations. They were found in three of the great tombs of panelled brick construction that are securely dated by seal impressions and other inscriptions to the 1st Dynasty (about 3000 B.C.). Thus they represent the extraordinary period at the beginning of history when Mem-

Map of Egypt showing the widely separated locations of the recent excavations of the Egypt Exploration Society. Buhen, just south of the Egypt-Sudan border, is now submerged by the new lake

Rock-crystal dish from the burial chamber of Tomb 3507, reign of Den. Repaired from small fragments by the excavators. Diameter 6¼ inches. Thickness less than ⅛ inch. Saqqara, about 3000 B.C.





East facade, corridor and enclosure wall of Tomb 3507, Saqqara Archaic Cemetery, reign of Den (about 3000 B.C.). The panelled brick superstructure is about 127 feet long by 56 feet wide. Traces of painted decoration imitating patterned wall-matting were found on the plastered niches. The corridor between the tomb and the plain brick enclosure wall was painted green. Photo W. B. Emery

Sketch-plan of Tomb 3507, Saqqara Archaic Cemetery, showing the burial-chamber covered by a rectangular brick mound which was itself enclosed by the panelled superstructure. The crystal dish was found in the burial chamber of this tomb. After W. B. Emery, Archaic Egypt *(1961), fig. 85*

phis was founded as the first capital of united Egypt under a highly organized state, when a system of writing was invented and standardized, when metal-working and other industries matured, when irrigation works were first undertaken on a national scale, and when art and the rapid development of stone-working foreshadowed the marvels of the Pyramid Age.

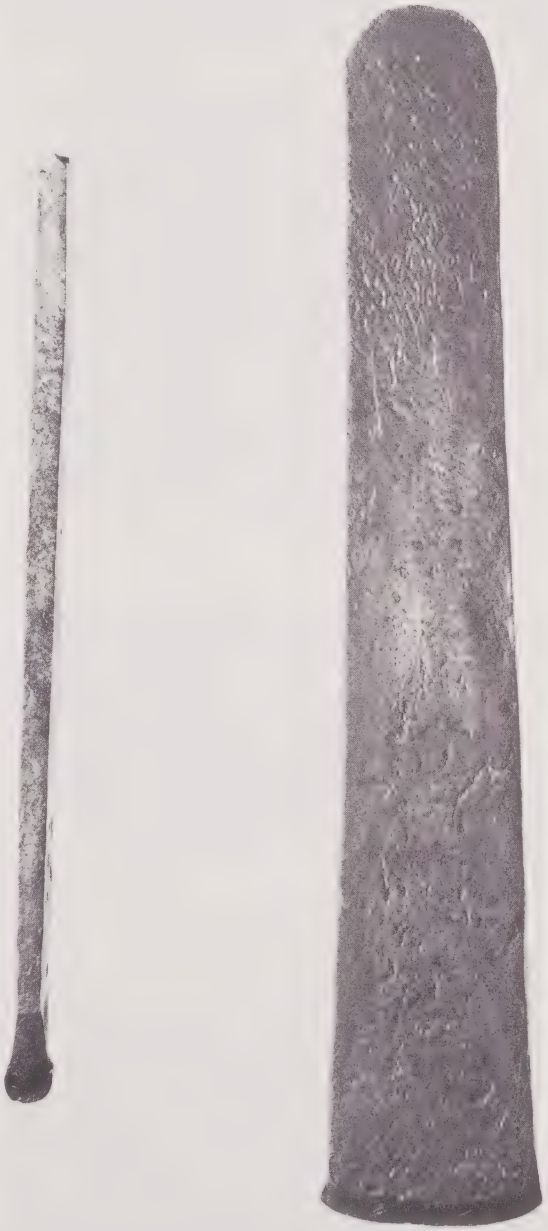
A "bon-bon dish," chipped and ground out of rock crystal with superb craftsmanship, is one of a very few personal belongings overlooked by ancient robbers in the burial chamber of the tomb of a royal lady who died during the reign of Den. A copper adze and chisel, originally provided with wooden handles, come from a store-room in the superstructure of a similar and even larger tomb that probably belonged to a high official of King Wadji. They were originally provided with wooden handles and seem strangely familiar in their functional precision. A clay sealing for a bag, one of two received, comes from a tomb dated to the reign of Anedjib. It shows a decorative rendering of the names of three officials, one of whom, Nebetka, is the probable owner of the tomb. The impression was made by rolling a cylinder-seal of wood,

stone or ivory. The signs, still archaic, were rapidly approaching the standard form of later hieroglyphic writing. Cylinder-seals and their more durable impressions, like the panelled brick architecture of the tombs in which they were found, are part of the evidence for close relations between Egypt and Mesopotamia in this formative period.

The next oldest objects to be described here come from the fortress of Buhen, which stood about two hundred miles south of Aswan on the west bank of the Nile opposite Wady Halfa, but is now submerged by the new lake above the Aswan High Dam. Buhen had been colonized by the Egyptians at the beginning of the Pyramid Age (about 2800 B.C.), apparently as a centre for mining and smelting copper. But the great fort was built in the 20th century B.C. by Sesostris I and enlarged about one hundred years later by Sesostris III (12th Dynasty). Buhen is the northernmost in a system of great forts protecting the non-navigable hundred-mile stretch of the river in the region of the Second Cataract. The southernmost, at Semna, was established by Sesostris III as the frontier of Egypt.

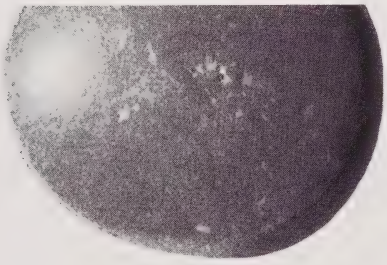
The most impressive feature of the work at Buhen was undoubtedly the recovery of the fort's architectural design. The Society also contributed expertise and manpower towards the safe removal to Khartoum of the beautifully decorated temple of Horus of Buhen built by Queen Hatshepsut (about 1503-1492 B.C.). Although quite as important as the temple, the immense brick fort could not be saved. In the closely built up area inside the walls of the fort, which first housed a garrison of about five hundred men and under the expanded empire the core of a colonial town, were found historically important inscriptions, many naming viceroys of Nubia. We received from here a selection of lowly objects of daily life, which are of special interest to us because they come from a habitation site. As the deposits recovered were not well stratified these objects can be dated only on typological or stylistic evidence. Some certainly belong to the 12th Dynasty, others probably to the Ramesside period (13th-12th century B.C.). Among our pieces from Buhen are a

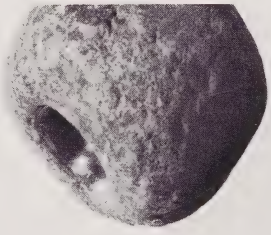
Copper adze and chisel from a storeroom in the superstructure of Tomb 3504, region of Wadji. Lengths 8 and 6 inches. Saqqara, about 3000 B.C.



Clay sealing showing the names of three officials, Nebetka, Im and Hedjer-aa. From Tomb 3038, reign of Anedjib. The impression was made by rolling a cylinder seal, which was about ¾ inch long. Saqqara, about 3000 B.C.

Three artisan's tools: a dolerite rubbing-stone, or maul; a basalt drill-cap; and a pottery nozzle for foot-bellows. Buhen, probably 13th century B.C.



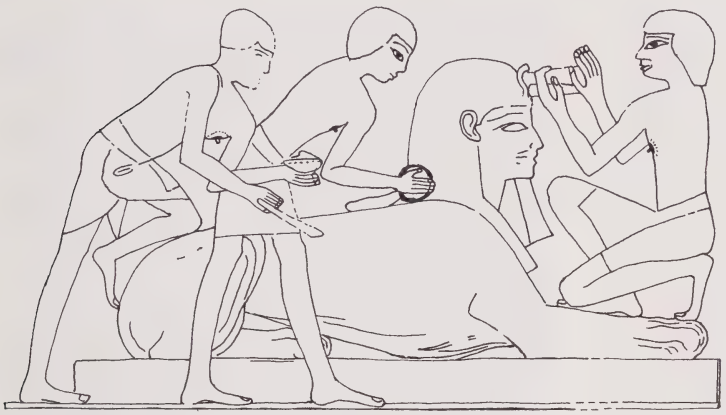


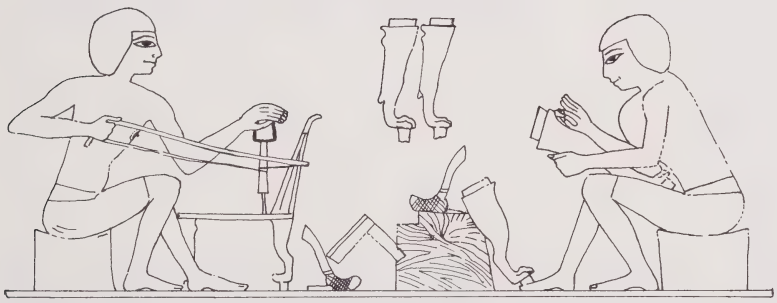
pottery stamp seal, probably official, and impressions of similar seals on pottery; a cribbage-like pottery game-board of well-known type; part of a pottery naked female figurine, perhaps a charm; the stamped handle of a large pottery wine-jar which, according to the stamp, contained "choice [wine] from Heliopolis;" a rough locally-made pottery vase in the form of a bird; and a fragment from an ancient ceiling that had been neatly made of mud, plaited palm-fibre and reeds, very similar in construction to those seen in villages of the Nile Valley today. Three common craftsman's tools, drill-cap, rubbing stone and bellows nozzle, are illustrated here, together with drawings from ancient Egyptian tomb-paintings demonstrating their use. The Society also sent us samples of copper slag and a basalt axe from the site of the Old-Kingdom town at Buhen.

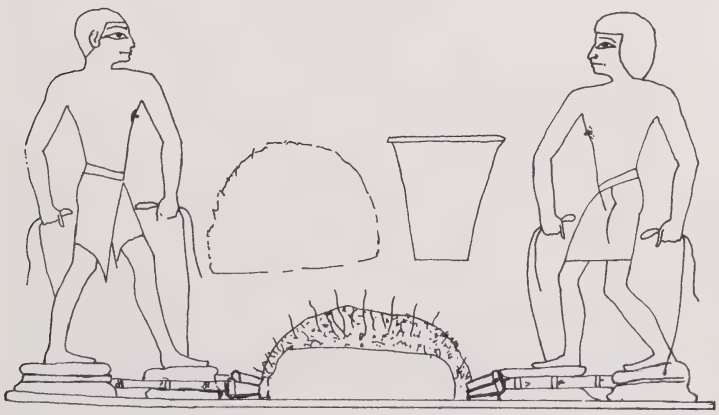
Except for the later pieces among these simple objects from provincial Buhen the shipment contained but a single piece from the New Kingdom, third and last great era in ancient Egypt history. It is an attractive wooden cos-

metic pot with swivel-lid, found in a burial of the early 18th Dynasty (16th-15th century B.C.) during the clearance of Tomb 3507 at Saqqara.

The three remarkable pieces received from the Society's most recent excavations at Saqqara are dated to the late 26th Dynasty or to the Persian period (i.e. 6th-5th century B.C.), when declining Egypt struggled, for a time successfully, against new world powers. The native arts had lost much of their vitality but technical virtuosity was undiminished and new foreign influences were being felt. These excavations were about five hundred yards to the west of the great First-Dynasty tombs described above.







Drawings from wall-paintings in an Egyptian tomb of the 15th century B.C., *showing the use of the three tools illustrated on opposite page: sculptors finish a limestone sphinx; a carpenter works a bow-drill for the thong-holes of a chair; and two metal-workers blow up a hearth, each treading two bellows which consist of leather bag (inflated with a string), reed pipe and pottery nozzle. After Davies,* Tomb of Kekh-mi-Re', *11, pls. 52 and 60*

Here during the 1966-1967 season Professor Emery discovered an immense enclosure lying over and in the midst of large tombs of the 2nd and 3rd Dynasties and immediately to the north of the ibis catacombs excavated the previous season. The excavators still hope to find in this area the tomb, and much later shrine, of Imhotep, vizier and chief architect of King Djoser (3rd Dynasty, about 2750 B.C.), and builder of Djoser's great pyramid-complex about half a mile to the south. In the following season the enclosure proved to contain a great terrace on which had stood a temple destroyed by Christions in the late 4th century. Inscribed limestone blocks of the 4th century B.C. revealed that this precinct was sacred in the late periods to the divine cow, mother of the bull-god Apis to whom belong the famous bull catacombs of the Serapeum, about half a mile to the west. The magnificent schist statue, the piece of gilded and inlaid woodwork and the bronze figure of Maat and many other fine objects had been dumped over the edge of the terrace with a mass of debris, probably when the temple in which they had been dedicated was destroyed. Beneath them was a layer of debris containing traces of common things of life and hundreds of precious fragments of inscribed papyrus dating from the 7th to the 3rd century B.C.

The expedition at Tell el-Fara'in (ancient Buto) is unlikely to produce such spectacular returns, but archaeologically it is supremely important. The site is a low barren mound more than one hundred and seventy-five acres in extent, lying in the midst of rich cultivation, about thirty-five miles east of Alexandria. Here stood the city of Pe, capital of the kings of Lower Egypt in late predynastic times, and neighbouring Dep, the home of the cobra-god-

Clearing the North Enclosure at Saqqara in 1966-1967, a section of the north end of the brick girdle-wall in the background. In this area were found the three votive objects illustrated. They had been dumped from the terrace discovered the following season, probably at the time of the final destruction of the temple in the late 4th century A.D. *Photo W. B. Emery*

Fragment of shrine or chest decorated with colored glass inlay and gold-leaf. The hieroglyphic inscription carries the throne name of King Amasis (568-525 B.C.*). Width (at cavetto) 5½ inches. Saqqara, 6th century* B.C.

dess Wadjet. The twin city lost its political power after unification (about 3000 B.C.) but remained an important religious centre, sacred to both Wadjet and the royal falcon-god Horus. The name Buto ("House of Wadjet") was at first associated only with the temple area but by the late periods had replaced the names Pe and Dep.

The site was first identified as Buto by Petrie who in 1904 sent C. T. Currelly, chief founder of the Royal Ontario Museum, to explore it. At that date Petrie was working under the auspices of the Egypt Exploration Society (then Fund). No systematic excavation, however, was undertaken at the site until 1964. By excavating a pit forty feet deep in a habitation area the modern excavators obtained a clear picture of the stratigraphy from the 7th century B.C. to the 2nd century A.D. Beneath this was water. They found in the course of exacting work in the temple area that the floor of the Ramesside temple (13th century B.C.), whose existence was established by the discovery of inscribed blocks re-used in the temple of Amasis (568-525 B.C.), was below the present water-table.

The three typologically valuable pots from Tell el-Fara'in come from an industrial area situated near the temple and dated to the Ptolemaic period (332-30 B.C.). The pots were associated with ancient pottery kilns, which were found at several places on the site. In the same context was found in 1967 a 1st-Dynasty cylinder-seal with the name of an official of Dep, raising the hope that early strata may yet be excavated at Buto and confirming the identification of the temple site with Dep.

Excavation was also carried out on a small separate mound less than four hundred yards to the northeast. This revealed, beneath a slightly later industrial area, a small fortification dated by coins to the late Ptolemaic period. It contained a large number of pottery jars and was probably a check-point for traffic from the north-east. Here were found, in late context, a few predynastic objects, once more showing that Buto had indeed a long history.

In his autobiography, *I Brought the Ages Home* (Toronto, 1956), Currelly describes his mission to Buto, including the sinking of seven

Schist statue of the Royal Scribe and Priest of Ptah Bakennanefu, also called Menkhibpsamtik. He holds an enshrined figure of the god Ptah. Hieroglyphic inscriptions on the back-pillar and around the base give the owner's name and titles, with dedication to Ptah-Sokar. The statue was re-dedicated in demotic Egyptian script to Osiris-Apis by Harsiesis son of Harmais, perhaps in the 4th century B.C. *Overall height 19 inches. Saqqara, late 26th Dynasty or Persian Period (6th-5th century* B.C.*)*

test-pits in the temple area. "Our work at the mound was unsuccessful . . . The sinkage of the earth had raised the water level, so that before we had gone any distance down we struck water, and it would have been a costly business to go further. At the gate of the temple was that ominous thing—an ancient lime kiln" (p. 77). Since then the archaeological techniques pioneered by Petrie have become highly developed, as exemplified by the present excavation of the site. The excavation of living sites in the densely populated valley has become more urgent, as these neglected mounds are rapidly disappearing and the ground water is rising. Their excavation is necessary to supplement the rich evidence from the margins of the desert, and especially to determine a more exact cultural chronology. It is fitting that the Royal Ontario Museum, in whose earliest history Buto played a part, should contribute towards the excavation of this difficult and supremely important site. With co-operative effort its most ancient strata may yet be uncovered and the costly engineering problem of the water-table solved.

Three pottery vessels: Two-handled cooking pot of rough red ware, height 4⅛ inches; bowl of local manufacture, imitating black ware widely known in the Greek world, diameter 5¼ inches; mortar of similar black ware, diameter 4¼ inches. Tell el-Fara'in (Buto). Ptolemaic period (332-30 B.C.)

ACKNOWLEDGEMENTS

In sending us these objects the Committee of the Egypt Exploration Society has shown the utmost consideration for our preferences. Special thanks are due to the following members of the Committee for attending to details of negotiation and shipment and for kind assistance in the study of the objects and their sites: Mr. T. G. H. James of the British Museum, and Miss M. S. Drower and Professor W. B. Emery of University College London. To Professor Emery the writer will always be grateful for the privilege of participating in his 1962-63 season at Buhen. Thanks are also due to Mr. B. V. Bothmer of the Brooklyn Museum for his written comments concerning the date of the schist statue from Saqqara.

Map and line drawings by N. Wasiliw, ROM Egyptian Department.

Winifred Needler is a graduate of the University of Toronto who also had three years of art school in Toronto and Boston. She joined the ROM in 1935, becoming committed to a career in Egyptology when she went to Yale University on a Carnegie fellowship in 1938. She continued postgraduate studies at the University of Toronto while in charge of the ROM's Near Eastern Department. When that department was divided in 1966 she became Curator of the Egyptian Department. She has participated in field work at Abydos, Buhen and Jericho and has travelled extensively in Egypt and the Near East. Her published work includes both serious Egyptological research and popular articles and guidebooks.

The McLaughlin Planetarium

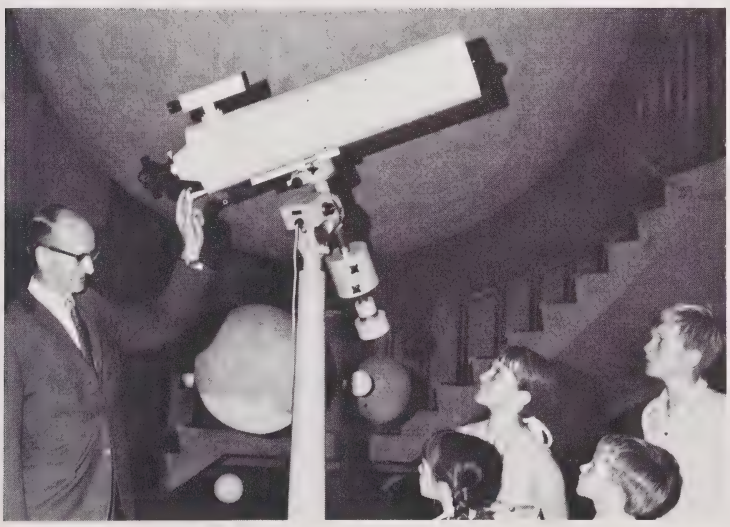
From times immemorial the Moon has held a fascination for man. Dreamers have contemplated its calm face, poets have sung of its quiet beauty, many an author has written of a journey to its shining surface—and now man has left his footprints upon its forbidding landscape.

Until recent years man had to be content with the lunar knowledge gained from earth-based instruments. Then came the advent of space probes and the remarkable photographic achievements of Ranger, Surveyor and Orbiter space craft which paved the way for man's greatest scientific achievement, the flight of Apollo 11.

Until November 30, the McLaughlin Planetarium is presenting a programme entitled "The World of the Moon." All the above and much more will be reviewed and explained in this imaginative programme. Starting in November, and approximately at four-month intervals thereafter, Apollo crews will again cross the void to the Moon, land on its surface, perform varied experiments and add immeasurably to the rapidly increasing knowledge of the Universe. The new Planetarium show will help keep you abreast of these stirring space events.

For the subject of its Christmas programme, the Planetarium takes a trip back through history. What was the event in the sky that heralded the most far-reaching fact of history, the birth of the Christ Child? How does the modern astronomer interpret the appearance of the star which led the Wise Men to Bethlehem? The Christmas programme, called "The Star of Bethlehem," begins December 2 and runs through January 12, 1970. The night sky of 2,000 years ago will be recreated, and against this stellar background will appear some astronomical events which could have caused the Magi to leave their eastern home, journey to a far distant land and in adoration present their gifts of gold, frankincense, and myrrh.

In July, the Planetarium added a fine telescope to its growing collection of instruments. The telescope was a gift from VEB Carl Zeiss Jena, the East German company which supplied the Zeiss projector installed in the Theatre of the Stars. The new instrument is a reflector of 6 inches aperture and the equivalent of 56 inches focal length. A set of eyepieces, mounted on a rotatable turret, enhance the usefulness of the telescope, providing a range in magnification from 56X to 225X.



Norman Green, Assistant Curator, displays to some young friends the Cassegrain-Reflecting Telescope "Meniscas", the gift of VEB Carl Zeiss Jena.

LA GUAJIRA

Women are the focus of Guajiro social life. Grandmother, mother, daughter and granddaughter are the heart of any Guajiro home

BY HELMUTH FUCHS,
ASSOCIATE CURATOR
ETHNOLOGY DEPARTMENT

The northernmost tip of South America, stretching out into the Caribbean, is a peninsula called La Guajira. Most of it belongs to Colombia although Venezuela owns the southeastern part. It is a hot, dry area with sand dunes and coconut trees along the shores. Most of the peninsula's interior is dry savannah although shrubs and succulent spurges are abundant, especially on the few mountain ranges.

The first European to officially see the peninsula was Alonso de Ojeda, in 1499. Hostilities with the aborigines and extreme difficulties in replenishing ship's water supplies in this desert marked the entrance of the Guajira Peninsula and its inhabitants into Western History.

The next European to know about the area was Juan de Buenaventura. This gentleman had been left behind by another Spanish expedition in a place some 200 miles southwest of the peninsula. In the following two years he made his way to the peninsula where he was picked up by Alonso de Ojeda's second expedition to the Americas.

On this occasion gold and pearls were reported on the peninsula and a rush began to its shores. A permanent settlement for pearl fishing was established at the northwest cape, called

Cabo de la Vela, and the village of Riohacha was made the administrative capital of the area and became a diocese in 1529. For four decades the peninsula was an economically booming area, in spite of being almost a desert, its inhabitants "nude savages." Cattle and other livestock were introduced to sustain a growing colony of Spaniards, Germans, and other Europeans. However, around 1600 the pearlbanks were exhausted. The exploiters of the peninsula's riches vanished as rapidly as they had appeared and the peninsula was left virtually to its aboriginal inhabitants, who picked up the abandoned livestock and started husbandry of their own.

How many Europeans visited the peninsula during the next centuries is not known. There were certainly representatives of the Roman Catholic Church who tried in vain to convert "these incredibly stubborn people." There also were other visitors right from the time of its discovery: pirates, filibusters, traders, often under rather puzzling conditions. Who, for instance, were the "certain Englishmen, also exploring waters of that area," met by Alonso de Ojeda on his first voyage in 1499 in the Gulf of Maracaibo? Was it, after all, Alonso de Ojeda who "discovered" the peninsula, believing it to be an island?

Between 1600 and 1850 it seems that the Guajiro Indians were able to remain principally independent in political matters, although in their own interests they sought frequent contact with Roman Catholic missionaries and foreign traders. These brief contacts occurred along the shores since the peninsula's interior was generally prohibited to all non-Guajirans. Words derived from Spanish, English and even Dutch, as well as from different aboriginal languages from other Caribbean islands, together with the goods, concepts, and the techniques they designate give an idea of the extent and intensity of Guajiro outside contacts during those 250 years. One traveller of 1806 mentions that the wealthier Guajiro families were sending their children as far as Jamaica for education. In short, relative political independence and opportunities for foreign trade enabled the Guajiro Indians to direct their own cultural change at their convenience. There were, of course, forcible efforts to subdue the Indians, which were vigorously resisted. Uprisings in the early 17th and mid 18th century clearly indicate such incidents. In the

Map of the Guajiro Peninsula

Every Guajiro woman spends at least four hours daily in making textiles. This hammock, in a technique called oblique interlacing *and with elaborate crochetted borders, would cost about $200 on the market*

A simple shade roof with wind protection on one side, meant as temporary shelter, often becomes a long-term settlement. A burro for water transport and the all-purpose hammock are the basic equipment of any household.

mid 19th century General Iguarán led a Colombian army, composed mostly of Negro soldiers, into the peninsula. For a time it looked as if the independence of the Guajiro Indians had come to an end. But then, the army dissolved among the Indians. Today the Iguarán is one of the wealthiest and most respected Guajiro families, and negroid facial features among the Guajiro make one suspect what happened not only to the General, but also his army.

Today, the Guajiro Indians and their culture are the unique product of biological and cultural amalgamation over the past 450 years.

Strictly scientific explorations on the peninsula commenced in the mid 19th century. Most of the explorers believed themselves to be in untouched land and dealing with "untouched" people, a misconception perpetuated until the present.

My personal experience with Guajiro Indians dates back to 1958 when as Curator of the Museo de Ciencias Naturales in Caracas, my wife and I visited them. Since then we have spent some weeks every year on the peninsula, establishing at first friendship and deepening it to brotherhood.

In the heart of the peninsula, in the summer of 1967, my wife and I were discussing plans to accept a position at the ROM in Toronto. "Toronto?" asked one of the bystanding Indians in broken English, "I knowing this city." It turned out that years ago he had worked as a sailor and had spent some time in Toronto.

What is so peculiar about the Guajiro Indians? The answer is their great ability to assimilate foreign concepts without giving up their cultural identity. Children receive education in both languages, Guajiro and Spanish.

Foreigners and visitors living among them gradually adopt their ways. Women, for instance, start at first to wear the wide *mantas,* comfortable during the hot but windy daytime and a welcome cover during the relatively cool nights. Secondly, they will use the face paint, a mixture of grease and mushroom spores which prevents the skin from drying up in this extreme climate. Of course everybody enjoys sleeping in hammocks, of which it is said that Guajiros are conceived in them, born in them and die in them. Next come the sandals with the big pompoms on top. Balancing the 6-inch pompoms between the big and second toe, one cannot but walk with slow careful straightforward steps, or, as the Guajiro say, walk with dignity as a woman should.

A woman's dignity is one of the basic notions of Guajiro life. Although the political and executive power lies in the hands of men, the women are the focus of Guajiro social life. The woman is the heart of the home. By law the children are hers—not their father's—and bear her family's (clan's) name. This rule of descent explains their extreme ability to easily withstand biological conquest. Regardless of fatherhood, a child born by a Guajiro woman will always be a Guajiro.

A typical Guajiro settlement is inhabited by an old women and her descendants. All of them, male and female, are blood relatives, or of the same flesh, as they say. Husbands of the female members and wives of the male members of such a group may stay with them, should they have no kin of their own to live with. Generally the wives of the men of such a group live in other places. Their children, anyway, do not belong to them.

Based on animal husbandry, some rudimentary agriculture, fishing, trading and earning of wages, their economy is basically sound. Of course, there are rich and poor among the Guajiro—few rich and many poor. During the past decades the Guajiro population has passed the 60,000 mark. By comparison with the economic development of surrounding areas, the peninsula remained rather old-fashioned and under-developed. But recently the governments of Colombia and Venezuela, assisted by the United Nations and its specialized organizations (F.A.O., U.N.I.C.E.F., O.I.T. etc.) designed a program to remedy the situation.

Men and women are great craftsmen and some of the items they produce are exhibited at the ROM in the first Ethnology Gallery. Most of the articles shown are textiles. There are fancy crochetted bags in different sizes, in many colours and variegated designs. Formerly the yarn was home-spun of cotton or wool and dyed in natural colours. Today industrially produced and dyed raw materials are purchased in the markets. There also are several kinds of hammocks, from simple looped to woven ones, although those at the Museum are rather simple types, in one colour, without a design. Woven sashes in different designs are relatively well represented in the ROM collection. Such sashes are made by women with its future wearer in mind and because of this "dedication" sashes are not easily purchased.

Of course the ROM has acquired a wide sample of tassels and pompoms. The latter are made in various sizes: big ones to be used on women's sandals; medium size as decoration; and small ones, generally grouped in two, three or even four, as keyholders or to keep other precious smaller things. The advantage of the pompoms is obvious. A key lost on the sand would disappear. The pompoms not only prevent a small article from sinking but also indicate its location from quite a distance. Also displayed are some musical instruments used by the Guajiro in their feasts. Bows and arrows are falling into disuse, because of the introduction of firearms, and the almost complete extinction of

Two old people on their way to the Monday market of Paraguipoa, which attracts people from all over the Peninsula

All women crochet bags of cotton or wool, in different sizes and with beautiful designs. These two pieces are from the collections of the Museo de Ciencias Naturales, Caracas, Venezuela

Long-deserted Cabo de la Vela was a bustling pearl-fishing port in the 16th century

game. Water is all-important to the Guajiro and some of their clay pots used for storing the precious liquid are shown. A series of photos explains the process of making pottery.

Finally, a burial urn of clay, taken with special permission from one of their graveyards, is shown in the Museum's temporary exhibition. In older times the Guajiro Indians practised so-called secondary urn burial. The corpse first was buried in sand until only the bones were left. A year later the bones were ceremonially exhumed by a specific person who had previously undergone complicated purification rites. Then the bones were permanently deposited in a clay urn. Although most of the Guajiro are now buried according to Catholic rites, occasionally one stage or the other of secondary urn burial is still practised by conservative families.

Obviously, the ROM's Guajiro collection is far from being complete. The most interesting and expensive Indian jewelry could not be acquired with our limited budget. Likewise, all the expensive items of the animal husbandry complex are missing: saddles, bits, etc. Nor does the Museum have examples of fishing equipment. But what we have is a very good start and there is no doubt that in the not too distant future we will be able to complete our Guajiro collection.

Photographs by Helmuth Fuchs

Guajiro girls wearing the wide manta *and pompom sandals. Jewelry, made of gold and semi-precious stones by the Indians themselves, is the personal treasure of a Guajiro girl*

Helmuth Fuchs is Associate Curator, ROM Department of Ethnology, and Research Associate Professor in the Department of Anthropology, George Washington University, Washington, D.C. His friendship with the Guajiro arose while he was Chief of the Department of Ethnology and Archaeology at the Museo de Ciencias Naturales in Caracas, Venezuela. Dr. Fuchs joined the ROM in late 1967. He is married, with two sons, Christian (9) and Mathias (7).

Recent Publications

In the 1850s Mrs. Amelia Bloomer created a scandal with the Bloomer costume; today, pant-dresses and pant-suits are everyday street wear. Did you know that in 1911, the Parisian couturier Poiret scandalized society by dressing his midinettes in *robes-pantaloon* for a day at the Auteuil races?

HAUTE COUTURE, *Notes on Designers and their Clothes in the Collections of the Royal Ontario Museum*, is a fascinating survey of couturiers from Hardy Amies to the House of Worth, from 1900 to the present. Biographies of over 60 designers and milliners, pace-setters in high fashion since the turn of the century, were assembled by members of the Fashion Group Inc. of Toronto. Katharine B. Brett, of the ROM Textiles Department, wrote notes on clothes by these designers in our collections. There are 43 illustrations, among them a baker's dozen from the ROM collections—the first a Molyneux of 1922-23 and the last a Griffe of the late 1950s.

Students of design and costume will prize HAUTE COUTURE as a reference; the general reader will find it an intriguing history of dress in our century. (HAUTE COUTURE, paperbound, 68 pages, illustrated; $4.00)

CRAFT DIMENSIONS CANADA is an illustrated catalogue of the exhibition of contemporary Canadian handicrafts, sponsored by the Canadian Guild of Crafts (Ontario) and the Royal Ontario Museum, September 23 to November 2, in the ROM Exhibition Hall. Three hundred and twenty-five professional craftsmen from across Canada submitted almost 900 entries in categories ranging from textiles, ceramics, leather, wood, and metal work to jewelry, glass and furniture. From these entries, an internationally-known three-man jury selected approximately 200 entries—68 of which are illustrated in fine black-and-white photographs by Arthur Williams of the ROM Photography Department. Editor of the catalogue is Harold B. Burnham, Curator of the ROM Textiles Department, whose knowledgeable introduction gives an overview of the craft movement in Canada in the past half-century. (CRAFT DIMENSIONS CANADA, paperbound, 92 pages, illustrated; $3.00)

A CHECKLIST OF CANADIAN FRESHWATER FISHES WITH KEYS FOR IDENTIFICATION, a Life Sciences Miscellaneous publication, was compiled by W. B. Scott and E. J. Crossman, Curators of the Department of Ichthyology and Herpetology. The CHECKLIST includes 183 species in 24 families and a map of the watershed areas of Canada. It will serve as a useful aid to all those interested in the Canadian freshwater fish fauna. (CHECKLIST OF CANADIAN FRESHWATER FISHES WITH KEYS FOR IDENTIFICATION, paperbound, 108 pages, map; $1.50)

A well-illustrated handbook by Donald B. Webster, Curator of the ROM Canadiana Department—EARLY SLIP-DECORATED POTTERY IN CANADA—traces the background and origin of slipwares as applied to Canada, discusses 17th and 18th century types used in colonial Canada, and describes both imported and native-made slipwares in the 19th century. Ceramic craftsmen and collectors of Canadiana will find the handbook both attractive and informative. (EARLY SLIP-DECORATED POTTERY IN CANADA, Charles J. Musson Publishers, paperbound, 80 pages, illustrated; $4.95)

The Royal Ontario Museum is pleased to announce that Charles J. Musson Limited has been appointed official distributor of ROM publications. A catalogue of ROM books in print may be obtained by writing to Charles J. Musson Limited, 109 McMaster Avenue, Ajax, Ontario, or to the Sales Desk, Royal Ontario Museum, 100 Queen's Park, Toronto 5.

The Growing Collections

A large collection of African and West Asian material was recently purchased by the Department of Ethnology. The 142 documented items include clothing, jewelry, ceremonial pieces, shields and clubs. Among the more significant acquisitions is a rare "idol dish" of brass, from the Yoruba of West Africa. The lid is decorated with small figures cast by the *cire perdue* method. Also from the Yoruba is a very old carved ceremonial battle axe, representing the god of war, and a beautifully carved wooden divining board.

From the Hausa of West Africa comes a complete male costume—red silk coat, white cotton robe, white cotton trousers, red flannel coat with hood, and red felt hat around which the turban is wrapped. The Tuareg of the Sahara are represented by a camel saddle, crosses and necklaces, while from West Pakistan comes a man's and a woman's costume.

The Department of Mineralogy has acquired 12 species of minerals not previously represented in the collections. Two of these were acquired through an exchange with the B.R.G.M. (Bureau Researches Geologiques et Minières)—bukovskyite and guerinite. Four others were acquired through an exchange with the Naturhistoriske Riksmuseet, Stockholm—joesmithite, wickmanite, parwelite and gabrielsonite. The other new species are langisite, tombarthite, hydrohetaerolite, rodaquilarite, romarchite and hydromarchite. Mr. P. Williams presented a large specimen, about 1½′ by 1½′, covered on one side with fine gemmy cinnamon-coloured grossular garnets, from Asbestos, Quebec. Perhaps the most spectacular acquisition was the group of large twinned cerussite crystals from Tsumeb, South West Africa. Each crystal is about 4″ x 4″ x 1″ (the photograph, by Arthur Williams, is about ¼ natural size). These crystals are probably as fine as those in any collection in the world.

Now on display in Gem Case 6 in the Gallery of Mineralogy is a recent purchase, an exquisite golden sapphire weighing 32.79 carats.

Recent acquisitions to the Far Eastern collections include an 18th century Korean lacquered picnic box decorated with inlaid mother-of-pearl, three pieces of Tibetan silver, and an Afghani amulet. The 10⅛″ high picnic box, generously donated by Mrs. George G. R. Harris, joins her previous gift of a 16th century Korean lacquered sutra case. The 19th century goblet and two butterlamps used in Lamaist ritual are the first pieces of Tibetan silver to be added to the collection. They illustrate the blending of art styles characteristic of Central Asia, for they combine standard Buddhist symbols and Chinese decorative motifs in a form derived from the Christian chalice.

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